Björklund

U.S.S.N.: 09/693,043

B. Amendments to the Claims:

This listing of the claims replaces all prior versions of the claims in the application:

Listing of the Claims:

- 1. (currently amended) A method for transplantation of at least about $500,0001 \times 10^6$ mitogenic growth factor-responsive neural stem cells capable of differentiating into neurons, oligodendrocytes, or astrocytes, the method comprising to a brain of a living host subject, wherein the cells
- (a) <u>administering said neural stem cells</u> are transplanted to a first <u>locusarea</u> of the brain <u>of a living host subject</u>, <u>said first area comprising multiple loci for receiving an aliquot of the neural stem cells</u>; and
- (b) migrate in vivo from the first locus toward a second locus following infusion of infusing a mitogenic growth factor that does not induce differentiation of the neural stem cells at the a second locus area of the brain of said host subject;
- (c) are capable of differentiating in situ into a cell selected from the group consisting of neurons, oligodendrocytes, and astrocytes following migration to the second locus; and

 (d) wherein the transplanted neural stem cells retain their in vivo-responsiveness to the mitogenic growth factor in vivo and migrate from the first area toward the second area, and wherein the neural stem cells are capable of differentiating into a cell selected from the group consisting of neurons, astrocytes, or oligodendrocytes following migration to the second area.
- 2. (previously presented) The method of claim 1, wherein said neural stem cells are mammalian embryonic neural stem cells.
- 3. (currently amended) The method of claim 1, wherein said first locus area is in the striatum of the brain and wherein said second locus area is in the lateral ventricle of the brain.
- 4-5. (canceled)

Björklund

U.S.S.N.: 09/693,043

6. (previously presented) The method of claim 1, wherein said neural stem cells are cultured in media comprising the mitogenic growth factor prior to transplantation.

7-12. (canceled)

- 13. (previously presented) The method of claim 6, wherein said culture is a suspension culture.
- 14. (previously presented) The method of claim 6, wherein said culture is an adherent culture.